



Docket No.: 10884-00023-US  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Arthur D. Ballard et al.

Application No.: 10/824957

Confirmation No.: 7461

Filed: April 14, 2004

Art Unit: N/A

For: DELIVERY SYSTEMS OF  
HOMOGENEOUS, THERMOREVERSIBLE  
ALGINATE FILMS

Examiner: Not Yet Assigned

**INFORMATION DISCLOSURE STATEMENT (IDS)**

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

Applicant has not submitted copies of each cited U.S. patent and U.S. patent application as required by 37 CFR 1.98(a)(2)(i), amended October 2004, as the U.S. Patent and Trademark Office has waived this requirement for all U.S. patent applications. Applicant submits herewith copies of foreign and non-patents in accordance with 37 CFR 1.98(a)(2).

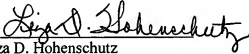
In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 03-2775, under Order No. 10884-00023-US. A duplicate copy of this paper is enclosed.

Dated: November 8, 2005

Respectfully submitted,

By   
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424622



Application No. (if known): 10/824957

Attorney Docket No.: 10884-00023-US

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	10/824957-Conf. #7461
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		Art Unit	N/A
		Examiner Name	Not Yet Assigned
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		Attorney Docket Number	10884-00023-US

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No.	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
E.S.C.	AA	2,802,000	8/6/1957	Caldwell et al.	
	AB	2,813,093	11/12/1957	Caldwell et al.	
	AC	2,825,727	3/4/1958	C. G. Caldwell	
	AD	2,876,217	3/3/1959	E. F. Paschall	
	AE	3,058,827	10/16/1962	J. L. Graham	
	AF	3,094,517	6/18/1963	N. F. Stanley	
	AG	3,176,003	3/30/1965	D. J. Stancioff	
	AH	3,329,509	7/4/1967	A. Julius	
	AI	3,378,546	4/16/1968	T. Tsuzuki	
	AJ	3,499,962	3/10/1970	Warzburg et al.	
	AK	3,505,110	4/7/1970	Kesler et al.	
	AL	3,607,394	9/21/1971	F. J. Germino et al.	
	AM	3,865,603	2/11/1975	Szymanski et al.	
	AN	4,009,291	2/22/1977	Mitchell et al.	
	AO	4,026,986	5/31/1977	Christen et al.	
	AP	4,129,134	12/12/1978	Hind et al.	
	AQ	4,231,803	11/4/1980	Bovier et al.	
	AR	4,276,320	6/30/1981	A. Moirano	
	AS	4,600,439	7/15/1986	Schneider et al.	
	AT	4,615,897	10/7/1986	Brown et al.	
	AU	4,626,288	12/2/1986	Trzasko et al.	
	AV	4,632,848	12/30/1986	Gassett et al.	
	AW	4,643,894	2/17/1987	S. C. Porter et al.	
	AX	4,725,441	2/16/1988	S. C. Porter	
	AY	4,738,724	4/19/1988	Wittwer et al.	
	AZ	4,795,642	1/3/1989	Cohen et al.	
	ABA	4,828,841	5/9/1989	S. C. Porter	
	ABB	4,935,243	6/19/1990	Borkan et al.	
	ABC	5,089,307	2/18/1992	H. Ninomiya et al.	
	ABD	5,146,730	9/15/1992	Sadek et al.	
	ABE	5,224,989	7/6/1993	Eva Likarova	
	ABF	5,334,640	8/2/1994	Desai et al.	
	ABG	5,342,626	8/30/1994	P. E. Winston, Jr. et al.	
	ABH	5,451,673	9/19/1995	Fishman et al.	
	ABI	5,484,598	1/16/1996	Schurig et al.	
	ABJ	5,549,983	8/27/1996	J. Yamanis	
	ABK	5,525,368	6/11/1996	Rha et al.	
	ABL	5,550,178	8/27/1996	Desai et al.	
	ABM	5,554,385	9/10/1996	N. Stroud	
	ABN	5,587,412	12/24/1996	G. Bochers et al.	
	ABO	5,620,757	4/15/1997	H. Ninomiya et al.	
	ABP	5,646,206	7/8/1997	D. R. Coffin et al.	
	ABQ	5,656,294	8/12/1997	Friend et al.	
	ABR	5,672,699	9/30/1997	R. L. Billmers et al.	
E.S.C.	ABS	5,726,008	3/10/1998	J. E. Maskasky	

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			First Named Inventor	Arthur D. Ballard	
			Art Unit	N/A	
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E.S.C.	ABT	5,804,243	9/8/1998	Loh et al.	
	ABU	5,811,388	9/22/1998	Friend et al.	
	ABV	5,817,323	10/6/1998	Hutchinson et al.	
	ABW	5,932,639	8/3/1999	Eden et al.	
	ABX	5,976,596	11/2/1999	L. Feller	
	ABY	6,030,641	2/29/2000	Yamashita et al.	
	ABZ	6,063,915	5/16/2000	Hansen et al.	
	ACA	6,066,368	5/23/2000	Billmers et al.	
	ACB	6,143,324	11/7/2000	Michaud et al.	
	ACC	6,146,570	11/14/2000	A. J. Stern	
	ACD	6,210,709	4/3/2001	Laba et al.	
	ACE	6,214,376	4/10/2001	A. Gennadios	
	ACF	6,331,205	12/18/2001	L. Paris	
	ACG	6,375,981	4/23/2002	G. M. Gilleland et al.	
	ACH	6,387,354	5/14/2002	Bixler et al.	
	ACI	6,479,649	11/12/2002	Tsai et al.	
	ACJ	6,517,865	2/11/2003	Cade et al.	
	ACK	6,528,088	3/4/2003	Gilleland et al.	
	ACL	6,607,748	8/19/2003	V. Lenaerts et al.	
	ACM	6,649,188	11/18/2003	Gilleland et al.	
	ACN	6,790,495	9/14/2004	Tomka et al.	
	ACO	2002/0081331	6/27/2002	K. E. Tanner et al.	
	ACP	2002/0142031	10/3/2002	G. M. Gilleland et al.	
	ACQ	2003/0139482	7/24/2003	L. G. Forkwe et al.	
	ACR	2004/0087669	5/6/2004	S. Hausmanns et al.	
	ACS	2005/0069579	3/31/2005	R. Kamaguchi et al.	
	ACT	2005/0070703	3/31/2005	R. Muller et al.	
E.S.C.	ACU	2005/0163833	7/28/2005	R. Muller	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No.	Foreign Patent Document Country Code* Number* Kind Code* (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	1*
E.S.C.	BA	EP 0 169 319	1/29/1986	Berwind Pharmaceutical Services, Inc.		
	BB	EP 0 400 484	12/5/1990	Mitsubishi Rayon Co., LTD		
	BC	EP 0 408 503	1/16/1991	Warner-Lambert Company		
	BD	EP 0 409 781	1/23/1991	Warner-Lambert Company		
	BE	EP 0 409 782	1/23/1991	Warner-Lambert Company		
	BF	EP 0 409 788	1/23/1991	Warner-Lambert Company		
	BG	EP 0 471 558	2/19/1992	Unilever NV		
	BH	EP 0 547 551	6/23/1993	National Search and Chemical Investment Holding Corporation		
	BI	EP 0 606 486	7/20/1994	Teijin Limited		
	BJ	EP 0 622 408	11/2/1994	CP Kelco ApS		
	BK	EP 0 633 896	1/18/1995	National Search and Chemical Investment Holding Corporation		
E.S.C.	BL	EP 0 761 691	3/12/1997	National Search and Chemical Investment Holding Corporation		

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	10/824957-Conf. #7451
		Filing Date	April 14, 2004
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	BM	JP 5-4914	1/14/1993	Asahi Chemical Ind; Fuji		
	BN	JP 7-106478	8/1/1995	Capsule KK		
E.S.C.	BO	WO 94/25493	11/10/1994	The United States of America		
	BP	WO 97/49762	12/31/1997	Oy Polymer Corex Kuopio Ltd.		
	BQ	WO 99/07347	2/18/1999	Paris, Laurence		
	BR	WO 00/10538	3/2/2000	Banner Pharmacaps, Inc.		
	BS	WO 00/18835	4/6/2000	Warner-Lambert Company		
	BT	WO 01/37817	5/31/2001	Greither, Peter		
E.S.C.	BU	WO 01/91721	12/6/2001	A.E. Staley Manufacturing Co.		

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kind Code of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>1</sup>		
E.S.C.	CA	de Vries J., "Interaction of carrageenan with other ingredients in dairy dessert gels", Gums and stabilisers for the food industry 11: proceedings of the 11th conference, Wrexham, vol. 11 (2002), no. -, pages 201-210, July 2001			
	CB	R. Falshaw et al., "Structure and performance of commercial K-2 carrageenan extracts", Food Hydrocolloids, vol. 17, pages 129-139, 2003			
	CC	FMC BioPolymer, "Carrageenan Matrices for Entrapment", Issue No. 1, April 1993			
	CD	Henry J. Witt, "Carrageenan Nature's Most Versatile Hydrocolloid", pages 347-360, 1985			
	CE	Glicksman, M., "Gum Technology in the Food Industry", Academic Press, pages 213-228, 1969			
	CD	C. J. Lawson et al., "Carrageenans", J.C.S. Perkin I, pages 2177-2182, 1973			
	CE	H. J. Bixler, "Recent developments in manufacturing and marketing carrageenan", Hydrobiologia, pages 35-57, 1996			
	CF	M. C. Matulewicz et al., "Carrageenan Systems from Tetrasporic or Cystocarpic Stages of Gigartina Skottsbergii", Phytochemistry, vol. 28, pages 2937-2941, 1989			
	CG	M. C. Matulewicz et al., "Methylation Analysis of Carrageenans from Tetrasporic and Cystocarpic Stages of Gigartina Skottsbergii", Phytochemistry, vol. 29, no. 11, pages 3407-3410, 1990			
	CH	C. Rochas et al., "Relation Between the Molecular Structure and Mechanical Properties of Carrageenan Gels", Carbohydrate Polymers, vol. 10, pages 115-127, 1989			
	CI	Stancioff, D. J. and Stanley, N. F., "Infrared and Chemical Studies on Algal Polysaccharides", Prod. Intl. Seaweed Symp. 6, pages 595-609, 1969			
	CJ	Bellion, C. et al., "Analysis of Kappa-Iota Hybrid Carrageenans with Kappa-Carrageenase, Iota-Carrageenase and <sup>13</sup> C N.M.R.", Xth International Seaweed Symposium, Walter de Gruyter & Co., Berlin-New York, pages 379-384, 1981			
	CK	Peats, S., "The Infrared Spectra of Carrageenans Extracted from Various Algae", Xth International Seaweed Symposium, Walter de Gruyter & Co., Berlin-New York, pages 495-502, 1981			
	CL	JP 5-4914 English language Abstract (espace.net)			
E.S.C.	CM	JP 7-196478 English language Abstract (European Patent Office)			
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